

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL questions.

11. (a) Explain the structure of RNA.
- Or
- (b) Write in short different forms of DNA.
12. (a) Write a note on semi- conservative mode of replication.
- Or
- (b) Discuss about DNA repair mechanism.
13. (a) Explain about RNA splicing.
- Or
- (b) Discuss on regulation of gene expression.
14. (a) Explain about preparation of DNA library.
- Or
- (b) Write a note on factors affecting PCR and application of PCR.
15. (a) Explain in brief gene therapy.
- Or
- (b) Write a note on production of insulin using rDNA technology.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe the Salient features of double helix DNA.
17. Explain in detail about the replication of DNA.
18. Discuss about the mechanism of translation.
19. Explain the basics steps of recombinant DNA technology.
20. Define Hybridoma technology and explain the production of monoclonal antibodies.
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APRIL/MAY 2024

**CMB41/FMB41 — MICROBIAL GENETICS**



Time : Three hours

Maximum : 75 marks

**SECTION A — (10 × 2 = 20 marks)**

Answer ALL the questions.

1. Define Codon.
2. List out the types of plasmid.
3. Define - Mutation.
4. Give two examples of physical mutagen.
5. What is translation?
6. Define Conjugation.
7. What is Attenuation?
8. Define – Green regulation.
9. What is Insertion sequence?
10. Give two examples of transposons.